# The Changing High-Technology Arms Market in the Aftermath of the Falklands and Lebanon Conflicts

Special National Intelligence Estimate



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# THE CHANGING HIGH-TECHNOLOGY ARMS MARKET IN THE AFTERMATH OF THE FALKLANDS AND LEBANON CONFLICTS

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# THIS ESTIMATE IS ISSUED BY THE DIRECTOR OF CENTRAL INTELLIGENCE.

#### THE NATIONAL FOREIGN INTELLIGENCE BOARD CONCURS.

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The Central Intelligence Agency, the Defense Intelligence Agency, the National Security Agency, and the intelligence organization of the Department of State.

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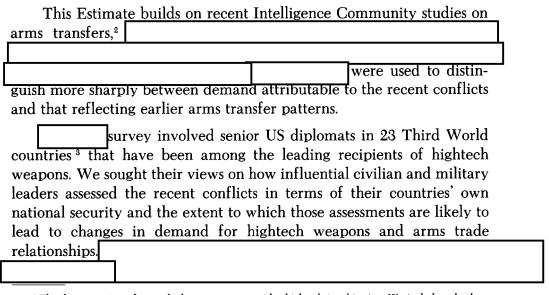
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#### SCOPE NOTE

This Estimate examines shifts in supply and demand for hightechnology weapons that are taking place in the aftermath of the recent conflicts in the Falkland Islands and Lebanon and the significance of these changes for US interests over the next five years. High-technology (hightech) weapons for purposes of this Estimate are those types of weapon systems, still in production, that gained attention in the recent conflicts. The specific types of weapon systems considered in this Estimate are described in annex B. Because these weapons are already available in NATO and Warsaw Pact inventories, European countries are treated mainly in this Estimate not as buyers but as potential suppliers.



<sup>&</sup>lt;sup>1</sup> The determination of just which weapons to consider hightech is subjective. We include only those types of weapon systems involved to a significant extent in the Falklands and Lebanon. Many of these are not new, having been widely used in Vietnam in the 1960s, in the 1973 Arab-Israeli war, or in more recent conflicts. Among these systems, we further restricted our analysis to those still in production. This enables us to determine production market shares and to distinguish between production for export and that for trade involving previously produced, older model weapons.

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<sup>&</sup>lt;sup>3</sup> Argentina, Brazil, Chile, China, Egypt, India, Indonesia, Israel, Kuwait, Malaysia, Mexico, Oman, Pakistan, Peru, the Philippines, Qatar, Singapore, South Africa, South Korea, Syria, Thailand, the United Arab Emirates, and Venezuela.

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#### **KEY JUDGMENTS**

Third World states display a high interest in acquiring a broad range of high-technology weapons and support equipment. The predominant view among both producers and potential Third World purchasers of hightech arms, however, is that overall spending on them will not increase dramatically. Rather, demand will shift in favor of the types of weapons—such as the Exocet and AIM-9L missiles—that were credited with good performance in the recent Falkland Islands and Lebanon conflicts. In this increasingly competitive arms market, more emphasis will be placed on prices and ancillary arrangements, such as training, maintenance, and coproduction.

The demand for such weapons predates the Falklands and Lebanon fighting, having been fueled especially by massive military modernization programs in Iran, Saudi Arabia, Libya, and a few other oilrich countries. But these weapons are attracting Third World attention especially at this time because the recent conflicts have shown them to be deadly, varied, ubiquitous, readily available, and capable of offsetting an enemy's seeming military advantages. Also, leaders in some countries are interested in these weapons for reasons of domestic or foreign prestige. The demand for hightech weapons over the next few years will be sustained primarily, however, by countries that are replacing recent war losses, and by those building larger stockpiles in view of the high loss and consumption rates noted in the Falklands and Lebanon.

Any increase in demand for hightech weapons will in most cases, however, not be reflected in actual military inventories for some time because of existing backlogs in arms orders and long production leadtimes. Many interested buyers, moreover, will be prevented from purchasing these weapons by severe budget constraints in reaction to the world recession, as their export earnings decline and their debt-service payments mount. Reduced oil revenues over the next few years will cause difficult procurement decisions and will inhibit arms acquisitions since the five top Middle East oil-exporting countries alone have accounted for about half of the total arms imported worldwide in recent years. Other buyers also will be hard pressed to sustain high levels of arms purchases. The tabulation on page 4 helps illustrate the range of competition in the arms market.

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#### Distribution of Countries in the Arms Market a

Sources of Arms	Third World Countries With Smaller Defense Budgets	Third World Countries With Larger Defense Budgets	Developed Countries	Total
Western	46	18	18	82
Mixed	26	11	1	38
Eastern	7	4	7	18
Total	79	33	26	138

a Tabulation expanded in table 1.

Virtually all the 18 countries that constitute the major Third World market for Western arms are either dependent on oil revenues or are experiencing serious foreign debt problems. Many of these have already fallen behind in their payments for military purchases. There is little prospect for arms market expansion elsewhere because only minor growth in arms imports is anticipated among the 26 developed countries, and most of the 79 countries included as minor arms buyers will probably reduce defense spending during the next few years.

Increased interest has been especially noted in systems for airborne warning and control, ship defense, air defense, electronic warfare, and hightech training. This may result in higher procurement priorities for tactical missiles, radars, avionics, midair refueling systems, electronic warfare equipment, simulator training devices, remotely piloted vehicles, and for training in the combat use of hightech weapons and equipment.

In addition to boosting the desire for hightech weapons, the Falkland and Lebanon crises have evidently caused several arms-purchasing countries to think more seriously about diversifying sources, increasing stockpiles, upgrading existing equipment, and acquiring weapons that are easily adaptable to a variety of platforms such as Sidewinder and Harpoon missiles.

The United States, France, and the United Kingdom will continue to dominate the Western hightech arms market:

- France, with a strong base in producing tactical missiles, may gain an increased share of the market as demand shifts.
- The excellent combat performance of American-made weapons ensures the United States a continued strong position in the market.
- US support for the United Kingdom during the Falklands conflict is not likely to have serious or lasting adverse effects on US foreign military sales to Latin American recipients.

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- The United States should benefit from increased demands for avionics and other electronic military equipment.
- If remotely piloted vehicles (RPVs) become more popular, as is likely, Britain could benefit from its broad research and development program for these RPVs.

Other arms producers, including West Germany, Italy, Israel, and Brazil, are not likely to increase their share of the hightech arms market appreciably. The overall volume of the market is not expanding and the newer producers lack comparative advantages to make them competitive in such weapons.

The decline in confidence in Soviet-made weapons, caused by their apparent poor performance in the hands of the Syrians, poses a potentially serious problem for the USSR. Inasmuch as foreign military sales account for about 16 percent of Moscow's hard currency earnings, the USSR can be expected to try to counteract this perception and meet Western competition by attempting to provide upgraded equipment and improve training, maintenance, and logistic support for Soviet-made equipment, often at attractive terms. The USSR remains in a strong position to provide quickly large quantities of hightech weapons. In any case, the Soviets will take steps to retain their present share of the hightech arms market.

Control over arms transfers will become more difficult as competition in the arms market increases. This competition will in some cases, such as tactical missiles and RPVs, result in more weapons available at lower prices as the number of smaller producers increases and complex distribution networks involving third countries are established. At the same time, arms producers have almost no incentives to limit sales. Under these conditions, hightech weapons will continue to proliferate, and there will be few low-threat areas remaining in the world.

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#### DISCUSSION

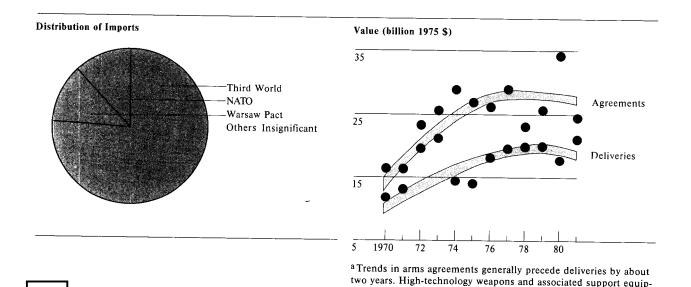
1. The recent conflicts in the Falkland Islands and Lebanon demonstrated the value of several hightechnology weapons, especially when directed by effective command and control systems and operated by well-trained people. Consequently, as governments reevaluate their security situations in light of these conflicts, many may see value in acquiring more sophisticated weapons and support systems. At the same time, the list of potential suppliers of weapons is increasing. The combination of increased desire and expanding supply could theoretically result in substantial increases in global arms exports, higher levels of military expenditures, and possibly changes in regional military balances. But the forces that generally favor greater demand for hightech weapons are likely to be countered by the difficult economic circumstances afflicting virtually all potential buyers. The most probable net result is that overall spending on hightech weapons will not increase dramatically, but demand

will shift in favor of the types of weapons—such as the Exocet and AIM-9L missiles—that were credited with good performance in the Falklands and Lebanon.

2. Any change in the hightech market will come about in a market that grew rapidly in the early 1970s but more recently has shown signs of leveling off. (See figure 1.) Most of the growth in sales resulted from the spending of a few oil-rich customers. In 1980, for example, Algeria, Libya, Saudi Arabia, and Iraq alone accounted for nearly two-thirds of the arms purchased that year by Third World countries. Moreover, some of these countries also have financed additional billions of dollars' worth of arms for other countries, including Jordan, Syria, North Yemen, and Pakistan. As the military modernization programs of these major Middle East buyers near completion in the next few years, however, their spending will probably shift from arms procurement to costly operations support.

ment account for about three-quarters of the estimated world arms

Figure 1 Trends in Global Arms Trade<sup>a</sup>



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The sharp downturn in oil revenues they all are experiencing is likely to cause them to be more cautious in the future about committing funds for major new weapons acquisitions.

- 3. Analysis of overall current arms procurement patterns reveals that there are three basic markets and three kinds of buyers. (See table 1.) A large majority of the countries of the world buy from the United States and Western Europe. Of the more than 60 Third World countries in this category, fewer than 30 percent of them spend more than \$500 million annually on defense. A much smaller group of countries buy from both the West and the Soviet Bloc (and China). Of the 37 Third World countries in this category, about 40 percent are major buyers. The third market comprises those few countries buying exclusively from the East. Four of the 11 Third World countries in this category can be considered major buyers. The main focus of competition among sellers is the major Third World buyers. These countries have accounted for more than 80 percent of the increase in arms imports over the last decade, while, during this same period, demand among developed countries has remained level.
- 4. The worldwide recession has contributed to severe budget problems for many countries. Export earnings have declined and debt-service payments have increased for the most part. At least 45 countries are experiencing serious foreign debt problems or are in arrears on payments for military purchases (see table 1). These factors will seriously inhibit the ability of many countries to increase their arms purchases.
- 5. The most immediate consequence of the Falklands and Lebanese conflicts has been to highlight for Third World onlookers the performance of the hightech weapons used in these engagements. Assessments by Third World governments of the effectiveness of these weapons will draw primarily on media reporting that occurred during and just after the conflicts and on whatever firsthand accounts participants may choose to pass on. In many cases, these governments' ability to judge how well weapons performed will be significantly handicapped by lack of access to detailed technical information on what occurred and, in some instances, by misinformation. For example, it was incorrectly reported that the HMS Sheffield, sunk in the Falklands conflict, had an aluminum superstructure.

- 6. Despite these problems, judgments will be made about weapon performance on the basis of available information. In particular, an impact was probably made by dramatic photography from the Falklands (figure 2), which drew attention to the French Exocet antiship missile's success in sinking two British ships and damaging a third. Similarly, press reports from Lebanon highlighted heavy Syrian losses of Sovietmade aircraft, tanks, and surface-to-air missile (SAM) systems to US-made aircraft and missiles used by the Israelis. In both conflicts, media reporting glamorized hightech weapons generally and tactical missiles in particular.
- 7. Our survey of major Third World arms-purchasing countries indicated both pressures that encourage additional purchases of hightech weapons and other pressures that tend to discourage them. The recent conflicts stimulated interest in hightech weapons in many countries and caused reevaluation of stockpile levels in light of the high loss rates noted in those conflicts. The possibility that potential enemies may acquire such weapons, the increasing availability of weapons, and reasons of national prestige also argue in favor of increased demand for hightech weapons. At the same time, however, many countries already have large, multiyear arms contracts that, if increased, would compound already serious foreign debt problems. Our survey also noted a preference for Westernmade arms, particularly after the poor showing of Soviet-made weapons in Lebanon. The arms embargo against Argentina during the Falklands conflict caused several countries to express intentions to diversify their sources of supply.
- 8. Our survey of the arms industry noted some increased interest in hightech weapons, but most commercial market observers are not anticipating substantial increases in demand. Nevertheless the current, relatively high level of demand may shift in favor of tactical missiles, electronic warfare equipment, reconnaissance equipment, aerial refueling equipment, and remotely piloted vehicles (RPVs). This shift would in part reflect a move toward upgrading existing equipment rather than procuring entire new systems. The details of both the consumer and supplier surveys are contained in annex A.
- 9. In the near term, the demand for hightech weapons will be sustained by the replacement of war

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Table 1

### The High-Technology Arms Markets

	Vith Annual Defense Budgets of an \$500 Million	Third World Countries With Annual Defense Budgets of More Than \$500 Million	Developed Countries
	Buyers in the V	Vestern Arms Market a	
Bahrain	Jordan	Argentina b	Australia
Barbados	Kenya	Brazil <sup>b</sup>	Austria
Bolivia <sup>b</sup>	Liberia <sup>b</sup>	Chile <sup>b</sup>	Belgium
urma	Malawi <sup>b</sup>	Indonesia	Canada
ameroon b	Malta	Malaysia b	Denmark
entral African Republic b	Mauritius	Mexico b	France
olombia	Nepal	Morocco b	Greece
osta Rica <sup>b</sup>	Niger	Oman	Israel
yprus	Panama	Philippines b	Italy
ominican Republic <sup>b</sup>	Papua New Guinea	Qatar	Japan
cuador <sup>b</sup>	Paraguay	Saudi Arabia	Netherlands
Salvador <sup>b</sup>	Rwanda	Singapore b	New Zealand
ji	Senegal <sup>b</sup>	South Korea b	Spain
abon	South Africa	Thailand b	Sweden
ambia	Sri Lanka	Turkey b	Switzerland
hana <sup>b</sup>	Swaziland	United Arab Emirates	United Kingdom
uatemala	Togo b	Venezuela b	United States
uyana <sup>b</sup>	Trinidad and Tobago	Taiwan b	West Germany
aiti	Tunisia b	I al wall	west Germany
onduras <sup>b</sup>	Upper Volta b		
eland	Uruguay		
ory Coast	Zaire <sup>b</sup>		
maica <sup>b</sup>	Zimbabwe		
	Buvers in the M	∕lixed Arms Market ∘	
angladesh b	Mali		1 1
enin	Mauritania <sup>b</sup>	Algeria China	Finland
otswana	Mozambique		
ırundi	Nicaragua <sup>b d</sup>	Egypt	
ape Verde	Nigeria	India	
had	North Yemen	Iran	
ongo	Seychelles	Iraq V	
juatorial Guinea	Sierra Leone b	Kuwait	
hiopia <sup>d</sup>	Somalia d	Libya	
linea b	Sudan b	Pakistan b	
uinea-Bissau	Tanzania <sup>b</sup>	Peru b	
ebanon b	Uganda b	Yugoslavia <sup>b</sup>	
adagascar b	Zambia		
			•
ghanistan	Buyers in the Ea	astern Arms Market c	n l
bania	Mongolia	Cuba	Bulgaria
ngola	South Yemen	North Korea b	Czechoslovakia
impuchea	Journ Temen	Syria	East Germany
		Vietnam <sup>6</sup>	Hungary
			Poland
			Romania
			Soviet Union

<sup>&</sup>lt;sup>a</sup> These countries procure 90 percent or more of their arms in the West.

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b These countries have serious foreign debt problems or recent records of arrears on military sales payments that could inhibit significant increases in their arms purchases.

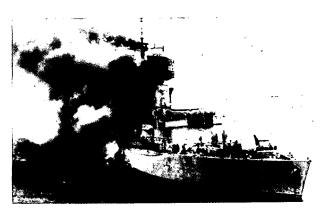
c These countries have procured major items of military equipment from both East and West within the last 10 years.

d These countries have shifted their procurement patterns in the last five years.

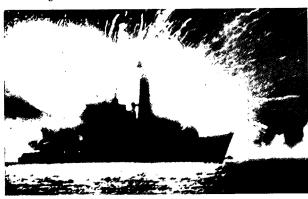
e These countries procure 90 percent or more of their military equipment in the East.

Figure 2 British Naval Losses in the Falklands

HMS Sheffield burns after being hit by an Exocet missile.



HMS Antelope explodes during attempt to defuse Argentine bomb.



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losses and the building of stockpiles. Over the longer term, however, the high rates of growth in sales of hightech weapons noted over the past decade may not be sustained unless economic conditions significantly improve for a sustained period. But even in a tight arms market, the United States should continue to do well. Economic problems may force Third World leaders to become highly selective in their procurement of weapons, and the recent conflicts will raise confidence in US weapons. US support for the United Kingdom in the Falkland Islands conflict is not likely to cause any lasting effect on weapons procurement choices in most Latin American countries. Also, pressure to diversify sources of supply will not be an overriding factor in most future decisions on arms purchases. On balance, considering all of the incentives and disincentives, we believe that the United States will continue to be the preferred source of hightech weapons for most countries.

10. US-Soviet relations could be affected if there is widespread demand for US and Western hightech weapons and, at the same time, a reduction in demand for Soviet weapons. Such conditions might cause Soviet leaders to have somewhat greater interest in renewing

conventional arms 'transfer talks with the United States, seeking to use such talks to reduce the flow of weapons to Western friends and allies. Another possible Soviet response to a threat of reduced arms sales could involve greater willingness to take risks to prevent erosion of confidence in Soviet military equipment. In Syria, for example, the Soviets have taken on greater responsibility for air defense. Also, the USSR and China may try to use Third World demand for hightech weapons to acquire advanced technology illegally.

11. For most countries, the effect of the Falkland Islands and Lebanon conflicts on military plans and operations will be modest. Most of the lessons learned were tactical, and there were no real surprises in weapons performance. The deadly, varied, and ubiquitous nature of hightech weapons may introduce more caution into contingency planning. Even those shifts in demand for hightech weapons that do occur are not likely to be reflected in military inventories for some time because of existing backlogs in arms orders and the long production leadtimes. Surveillance aircraft, for example, take about 36 months to produce, and delivery time is now about four years. Attempts to

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buy hightech weapons "off the shelf" are likely to be unsuccessful. Overall, we do not expect to see any dramatic changes in regional military balances for the next few years.

12. Over the longer term, we may see changes in force postures if some Third World military leaders conclude that the risks of not having the latest military equipment are too great and that personnel levels have to be reduced to pay for hightech weapons—although any such reductions in the size of active duty forces will, of course, be a difficult trade-off. Another conclusion that could lead to changes in force postures would be that military stockpiles need to be increased in the light of the high consumption and loss rates in

the recent conflicts; again, the difficult trade-off would be fewer forces versus more hightech arms.

13. In any event, US efforts to manage arms competition will be greatly complicated by another tendency demonstrated in the two recent conflicts: the establishment of covert and indirect arms relationships. Because of the widespread availability of hightech weapons, complex networks of arms transfers may reduce the effect of arms embargoes sought by any of the major producers. At the same time, arms producers have almost no incentives to limit sales. Under these conditions, hightech weapons will continue to proliferate, and there will be few low-threat areas remaining in the world.

